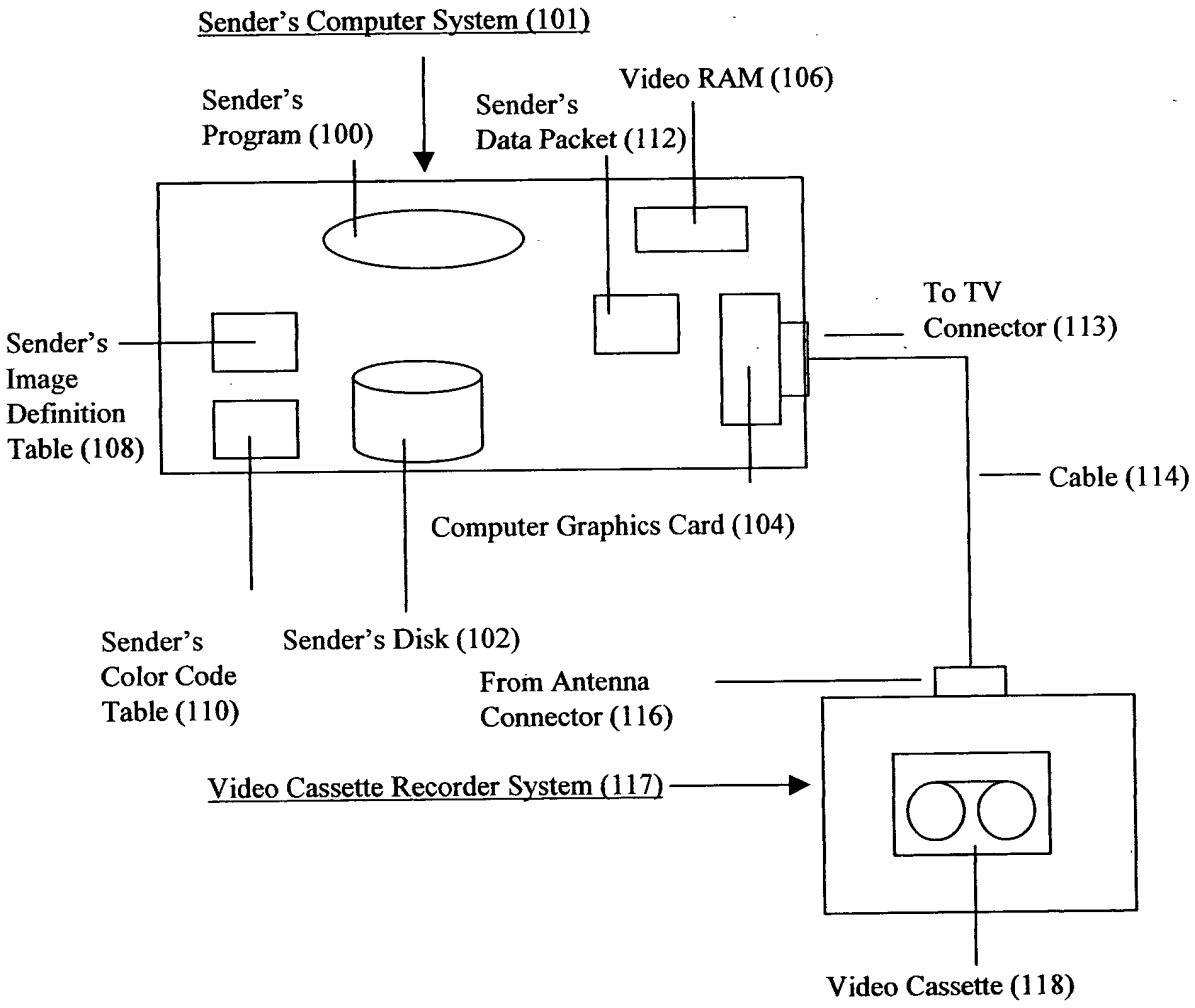
Sender's Computer System (101)
Sender's Program (100)
Sender's Data Packet (112)
Video RAM (106)
To TV Connector (113)
Sender's Image Definition Table (108)
Cable (114)
Computer Graphics Card (104)
Sender's Color Code Table (110)
Sender's Disk (102)
From Antenna Connector (116)
Video Cassette Recorder System (117)
Video Cassette (118)

Fig. 1

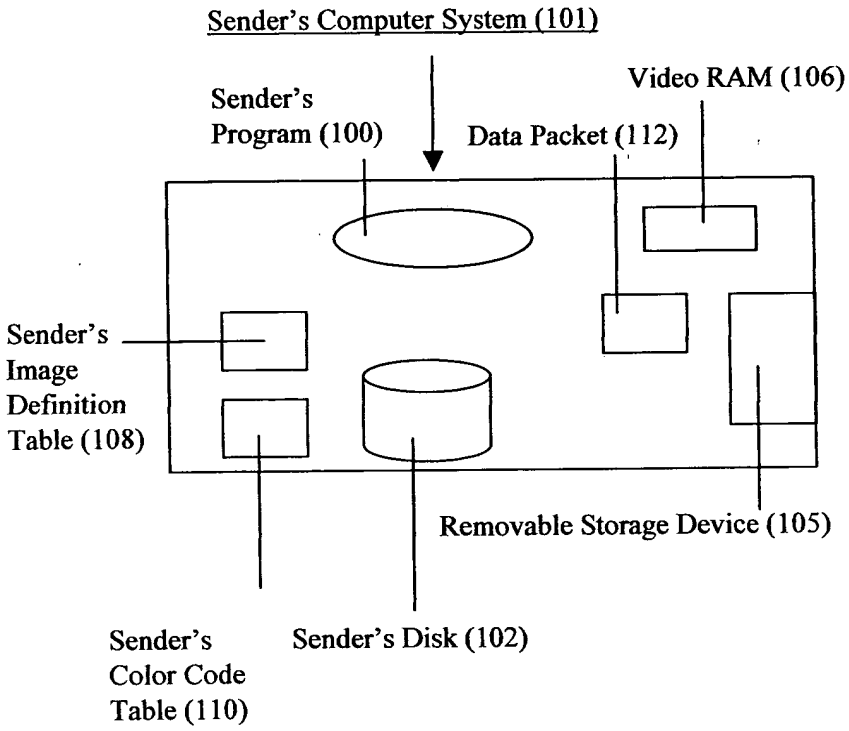
Sender's Computer System (101)
Sender's Program (100)
Video RAM (106)
Data Packet (112)
Sender's Image Definition Table (108)
Removable Storage Device (105)
Sender's Color Code Table (110)
Sender's Disk (102)

Fig. 1a

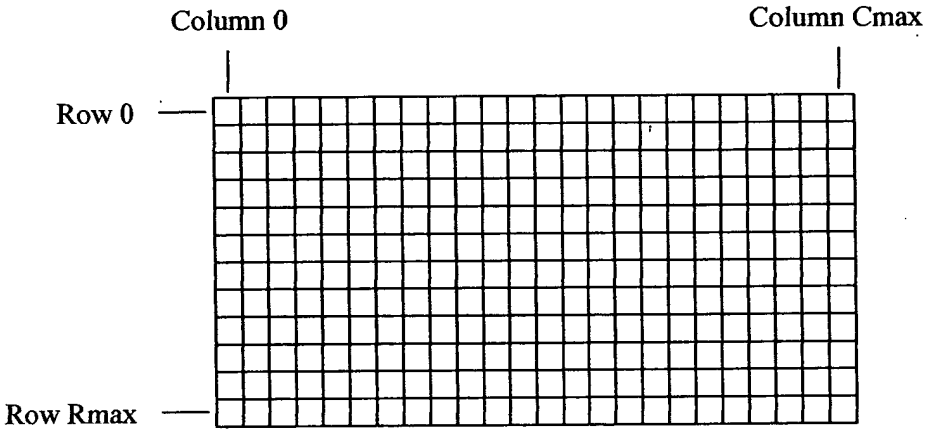
Column 0
Column Cmax
Row 0
Row Rmax

Fig. 2

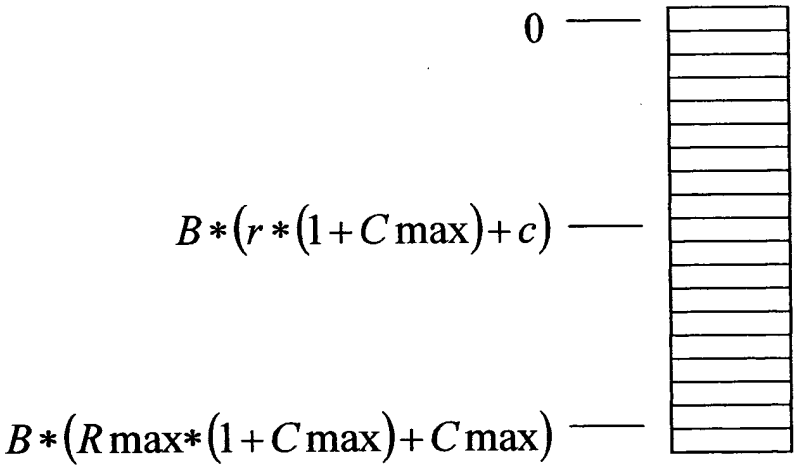
0
$B*(r*(1+C\max)+c)$
$B*(R\max*(1+C\max)+C\max)$

Fig. 3

Image Area	Ordered Set of Memory Address Offsets
0	{ Set 0}
1	{ Set 1}
2	{ Set 2}
Amax	{ Set Amax}

Fig. 4

Row	Red	Green	Blue	Color Value
0	r0	g0	b0	c0
1	r1	g1	b1	c1
2	r2	g2	b2	c2
..				
..				
..				
$2^N - 1$				

Fig. 5

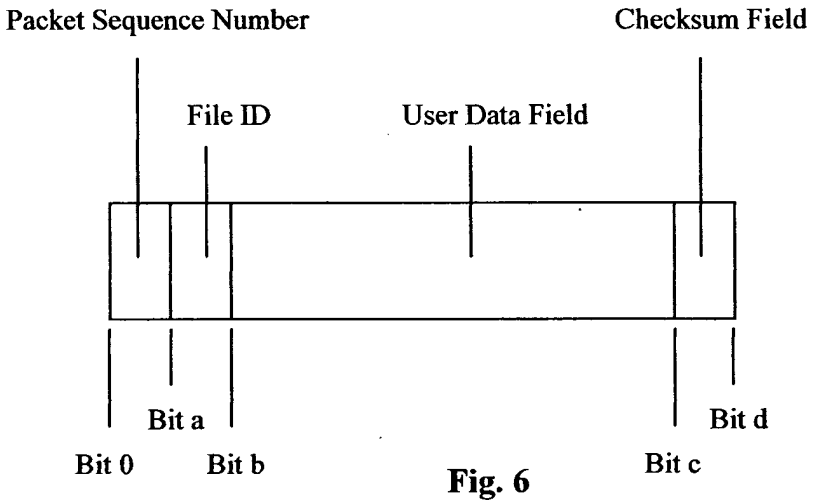

Fig. 6

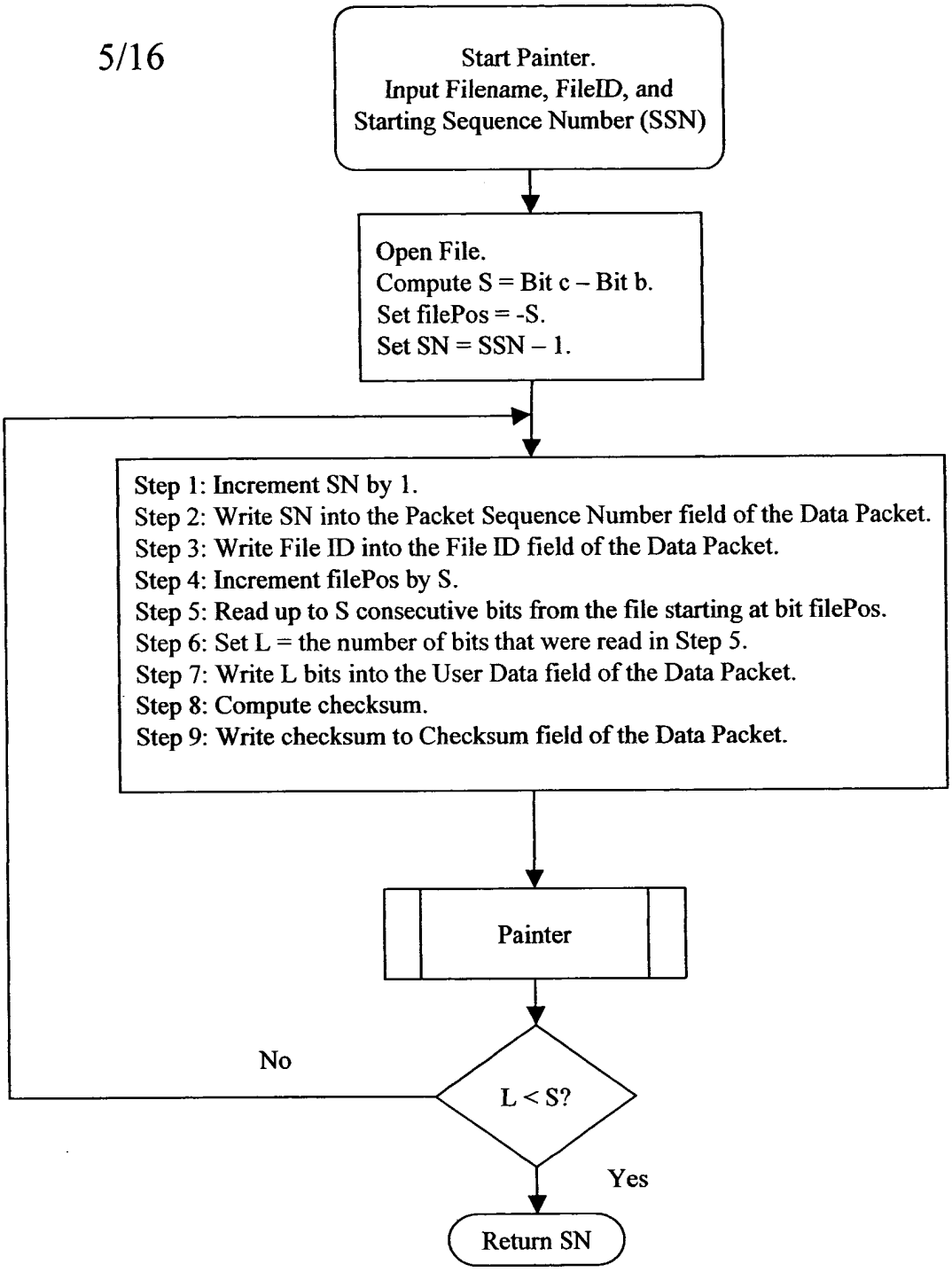
Start Painter.
Input Filename, FileID, and
Starting Sequence Number (SSN)
Open File.
Compute S = Bit c – Bit b.
Set filePos = -S.
Set SN = SSN – 1.
Step 1: Increment SN by 1.
Step 2: Write SN into the Packet Sequence Number field of the Data Packet.
Step 3: Write File ID into the File ID field of the Data Packet.
Step 4: Increment filePos by S.
Step 5: Read up to S consecutive bits from the file starting at bit filePos.
Step 6: Set L = the number of bits that were read in Step 5.
Step 7: Write L bits into the User Data field of the Data Packet.
Step 8: Compute checksum.
Step 9: Write checksum to Checksum field of the Data Packet.
Painter
No
L < S?
Yes
Return SN

Fig. 7

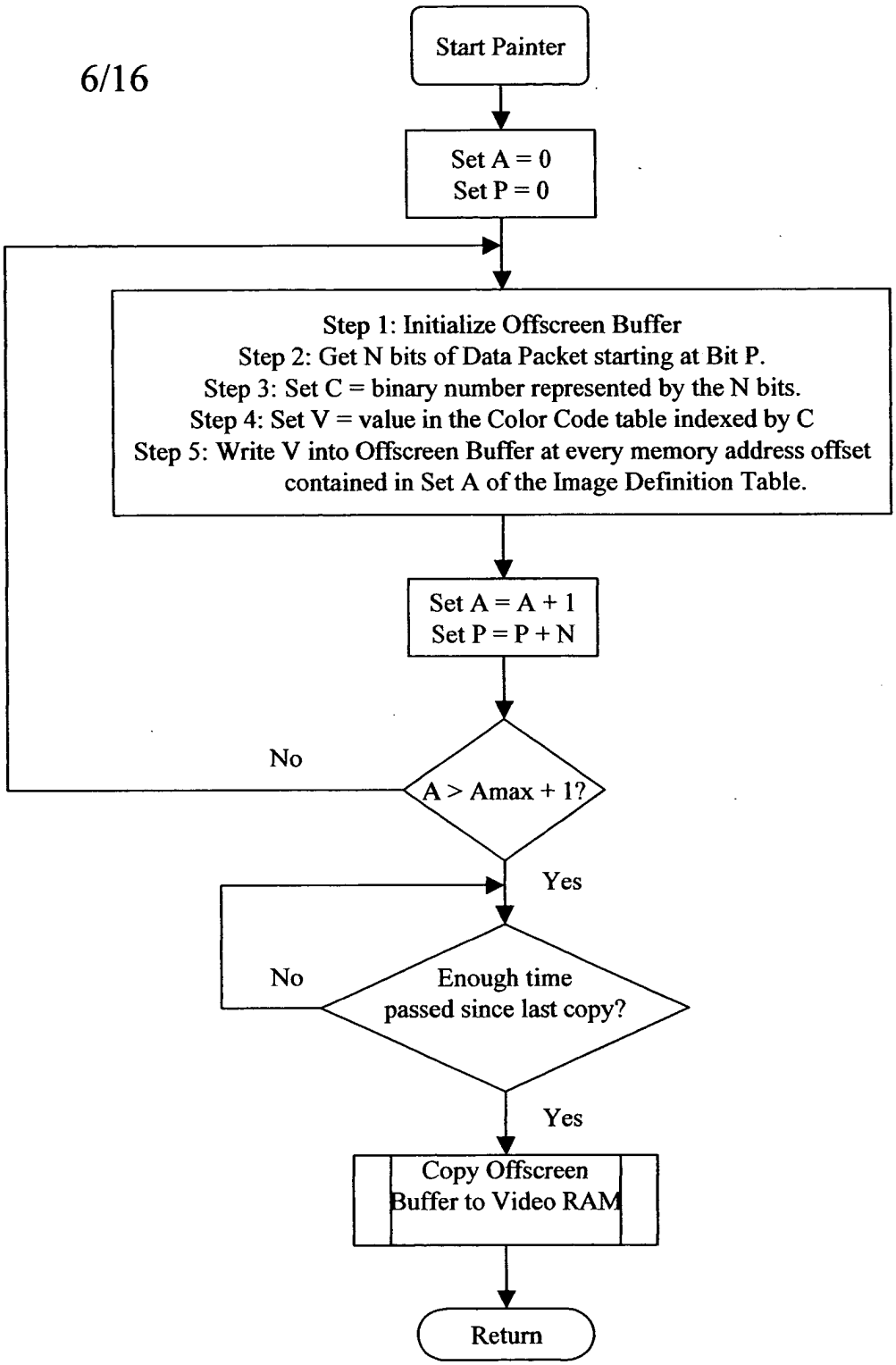
Start Painter
Set A = 0
Set P = 0
Step 1: Initialize Offscreen Buffer
Step 2: Get N bits of Data Packet starting at Bit P.
Step 3: Set C = binary number represented by the N bits.
Step 4: Set V = value in the Color Code table indexed by C
Step 5: Write V into Offscreen Buffer at every memory address offset contained in Set A of the Image Definition Table.
Set A = A + 1
Set P = P + N
No
A > Amax + 1?
Yes
No
Enough time passed since last copy?
Yes
Copy Offscreen Buffer to Video RAM
Return

Fig. 8

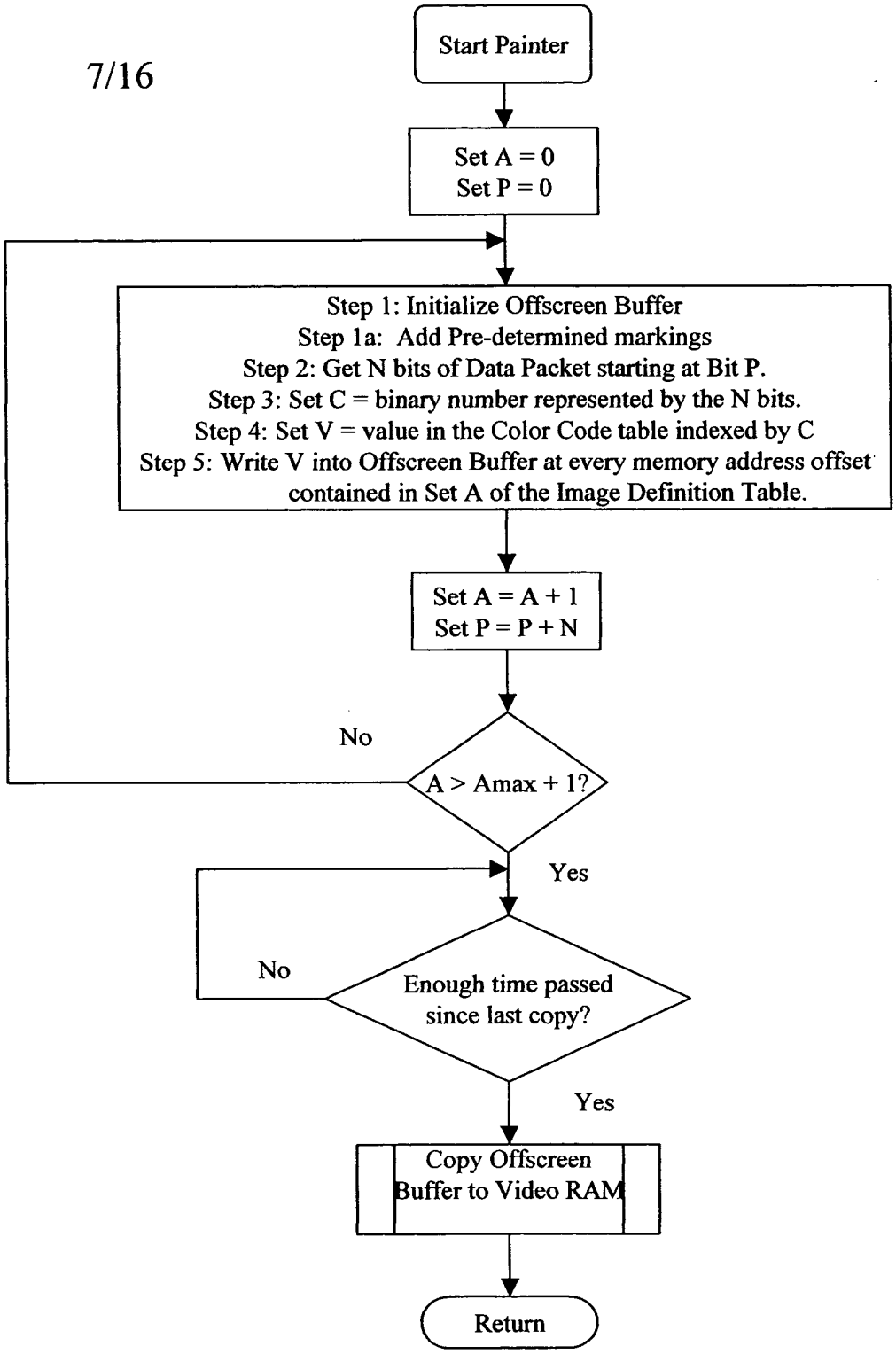
Start Painter
Set A = 0
Set P = 0
Step 1: Initialize Offscreen Buffer
Step 1a: Add Pre-determined markings
Step 2: Get N bits of Data Packet starting at Bit P.
Step 3: Set C = binary number represented by the N bits.
Step 4: Set V = value in the Color Code table indexed by C
Step 5: Write V into Offscreen Buffer at every memory address offset contained in Set A of the Image Definition Table.
Set A = A + 1
Set P = P + N
No
A > Amax + 1?
Yes
No
Enough time passed since last copy?
Yes
Copy Offscreen Buffer to Video RAM
Return

Fig. 8a

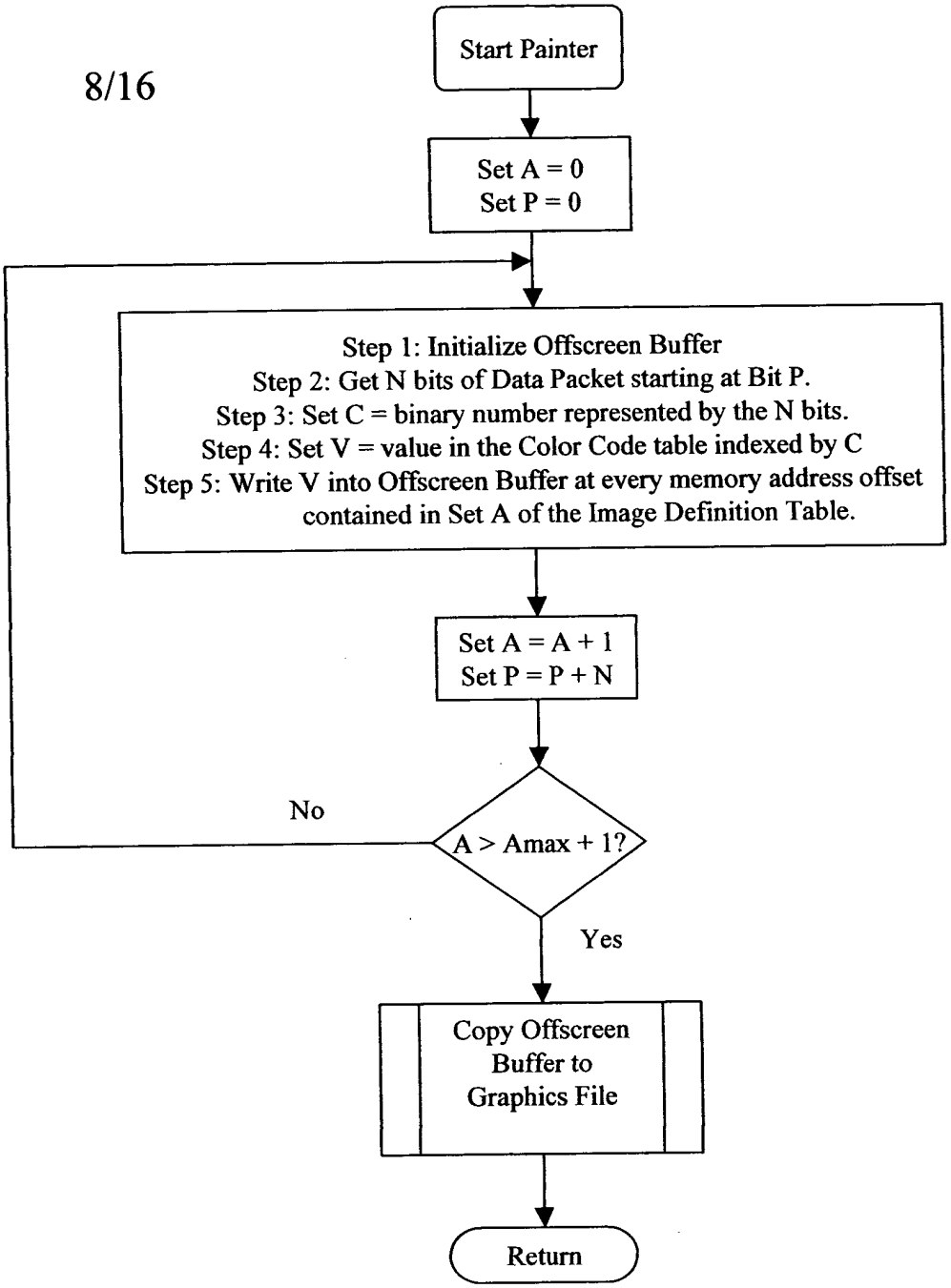
Start Painter
Set A = 0
Set P = 0
Step 1: Initialize Offscreen Buffer
Step 2: Get N bits of Data Packet starting at Bit P.
Step 3: Set C = binary number represented by the N bits.
Step 4: Set V = value in the Color Code table indexed by C
Step 5: Write V into Offscreen Buffer at every memory address offset contained in Set A of the Image Definition Table.
Set A = A + 1
Set P = P + N
No
A > Amax + 1?
Yes
Copy Offscreen Buffer to Graphics File
Return

Fig. 8b

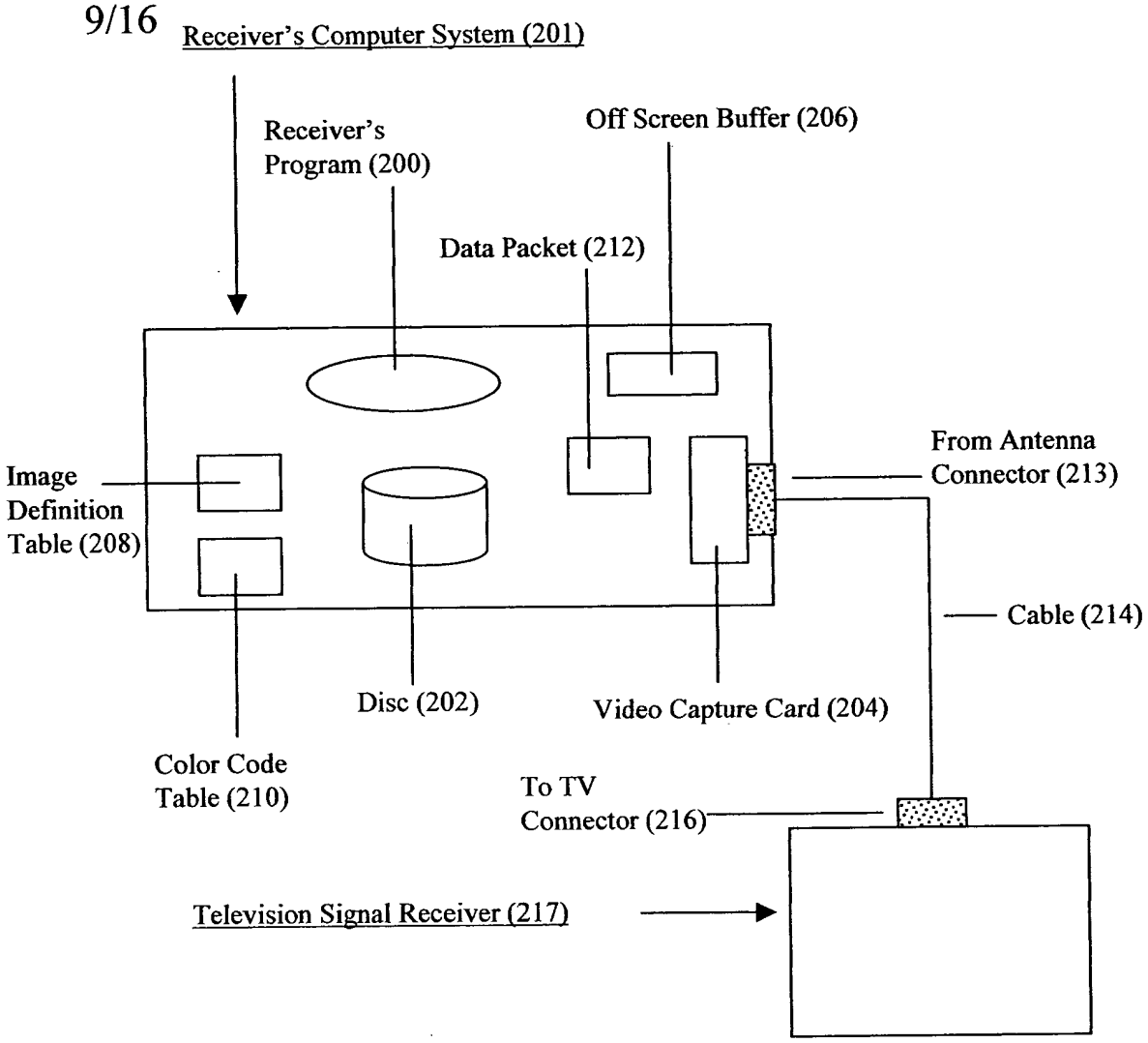
Receiver's Computer System (201)
Receiver's Program (200)
Off Screen Buffer (206)
Data Packet (212)
Image Definition Table (208)
From Antenna Connector (213)
Cable (214)
Disc (202)
Video Capture Card (204)
Color Code Table (210)
To TV Connector (216)
Television Signal Receiver (217)

Fig. 9

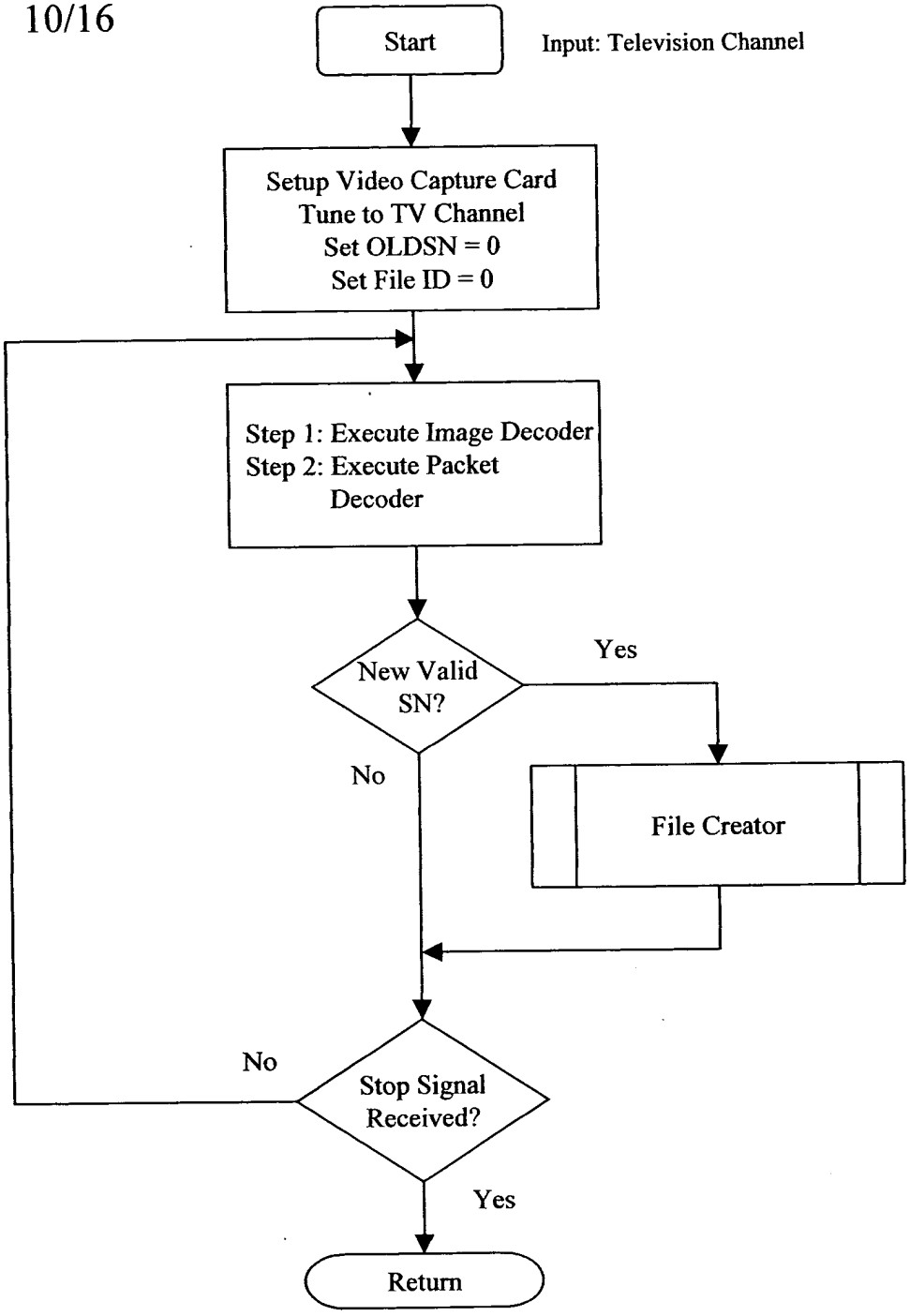
Start
Input: Television Channel
Setup Video Capture Card
Tune to TV Channel
Set OLDSN = 0
Set File ID = 0
Step 1: Execute Image Decoder
Step 2: Execute Packet Decoder
New Valid SN?
Yes
No
File Creator
Stop Signal Received?
No
Yes
Return

Fig. 10

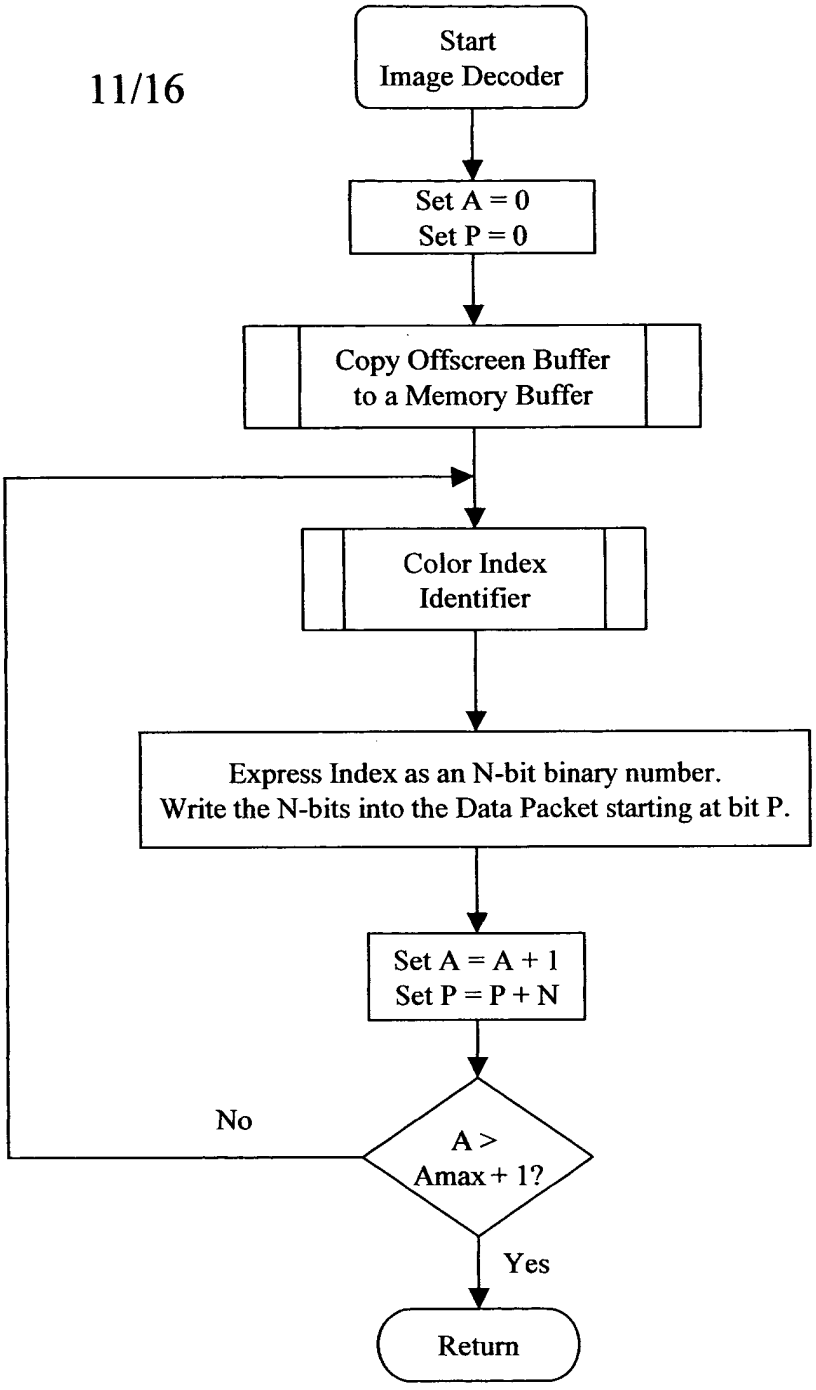
Start
Image Decoder
Set A = 0
Set P = 0
Copy Offscreen Buffer
to a Memory Buffer
Color Index
Identifier
Express Index as an N-bit binary number.
Write the N-bits into the Data Packet starting at bit P.
Set A = A + 1
Set P = P + N
A >
Amax + 1?
No
Yes
Return

Fig. 11

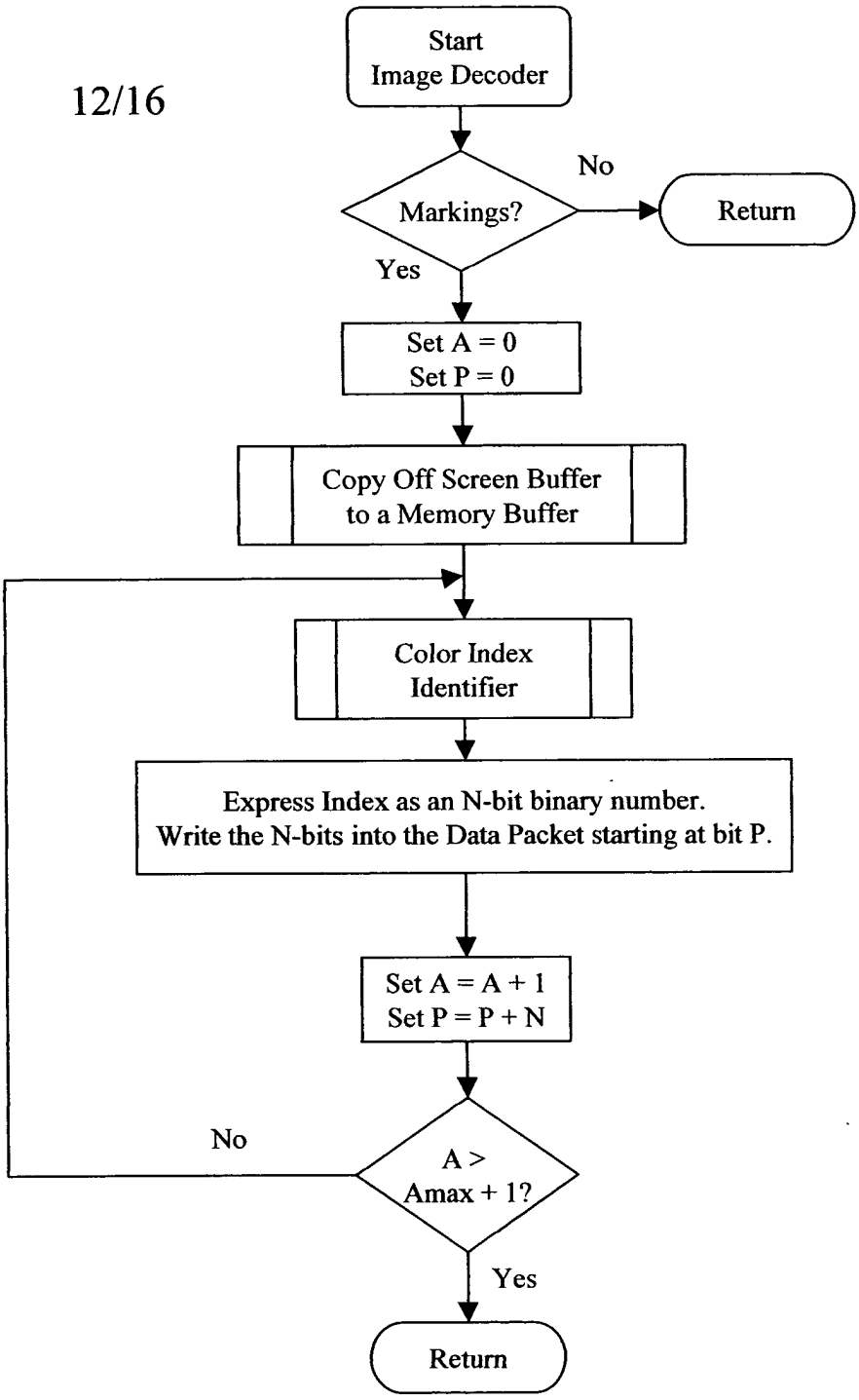
Start
Image Decoder
Markings?
No
Return
Yes
Set A = 0
Set P = 0
Copy Off Screen Buffer
to a Memory Buffer
Color Index
Identifier
Express Index as an N-bit binary number.
Write the N-bits into the Data Packet starting at bit P.
Set A = A + 1
Set P = P + N
A >
Amax + 1?
No
Yes
Return

Fig. 11a

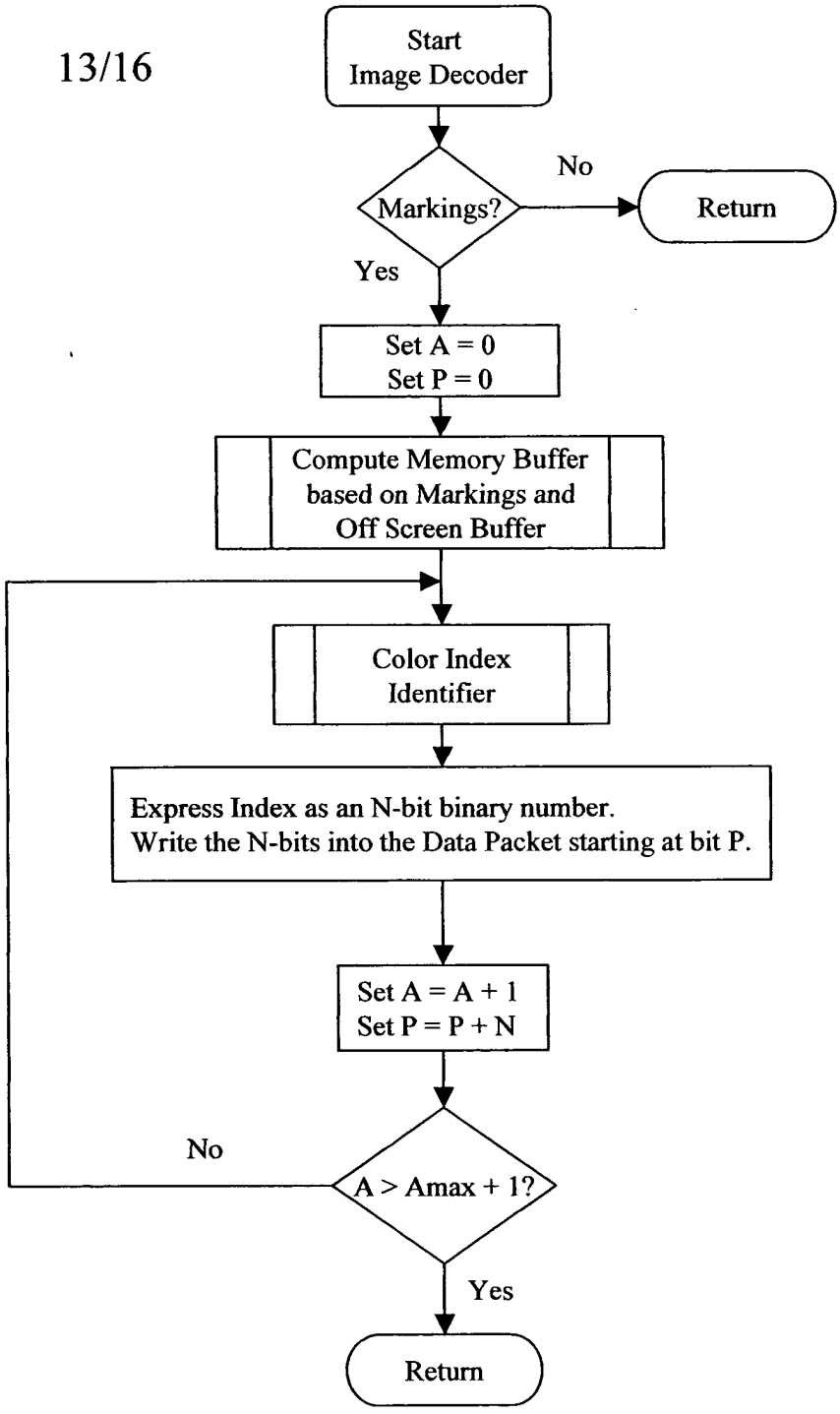
Start
Image Decoder
Markings?
No
Return
Yes
Set A = 0
Set P = 0
Compute Memory Buffer based on Markings and Off Screen Buffer
Color Index Identifier
Express Index as an N-bit binary number.
Write the N-bits into the Data Packet starting at bit P.
Set A = A + 1
Set P = P + N
No
A > Amax + 1?
Yes
Return

Fig. 11b

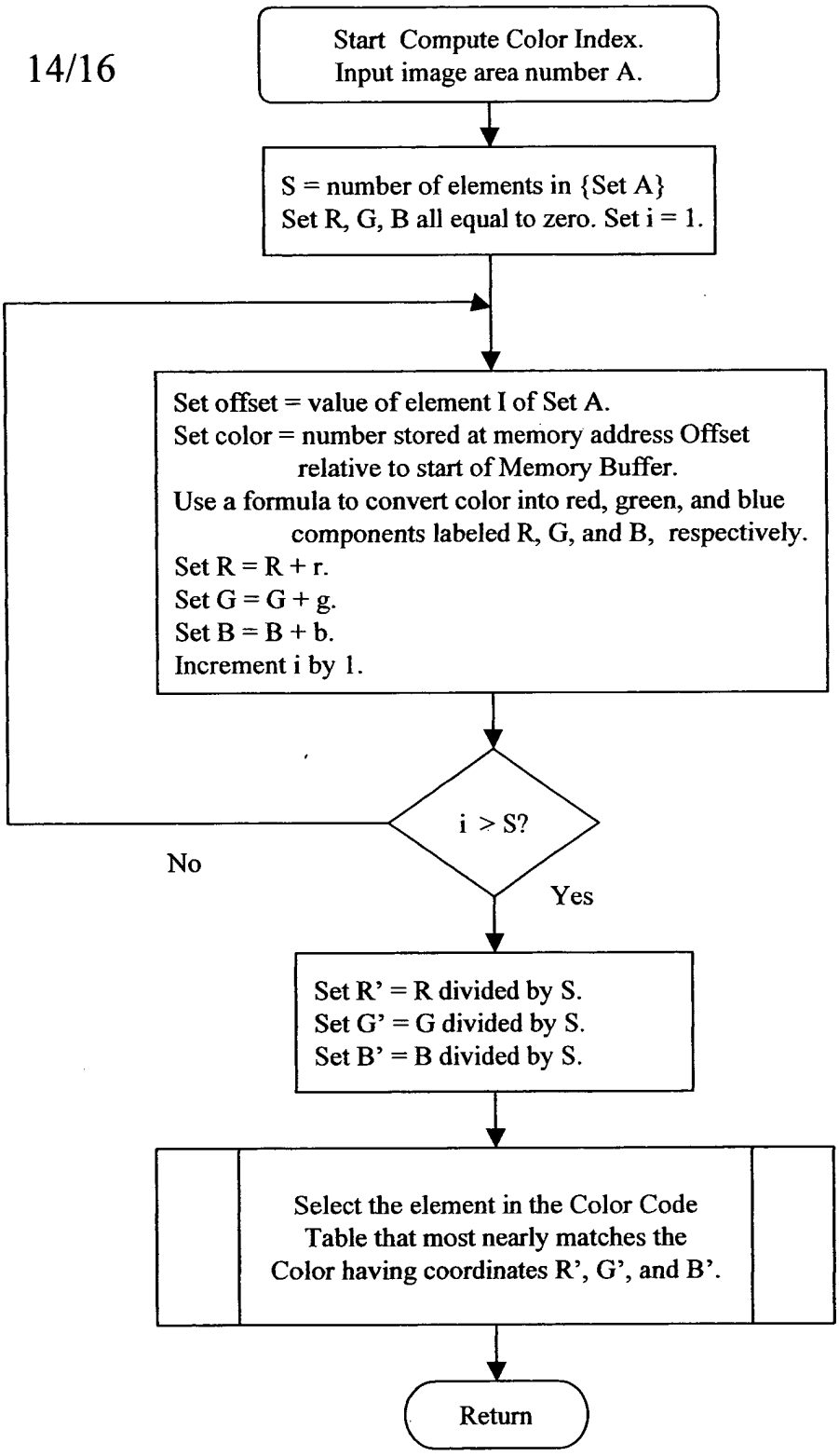
Start Compute Color Index.
Input image area number A.
S = number of elements in {Set A}
Set R, G, B all equal to zero. Set i = 1.
Set offset = value of element I of Set A.
Set color = number stored at memory address Offset relative to start of Memory Buffer.
Use a formula to convert color into red, green, and blue components labeled R, G, and B, respectively.
Set R = R + r.
Set G = G + g.
Set B = B + b.
Increment i by 1.
i > S?
No
Yes
Set R' = R divided by S.
Set G' = G divided by S.
Set B' = B divided by S.
Select the element in the Color Code Table that most nearly matches the Color having coordinates R', G', and B'.
Return

Fig. 12

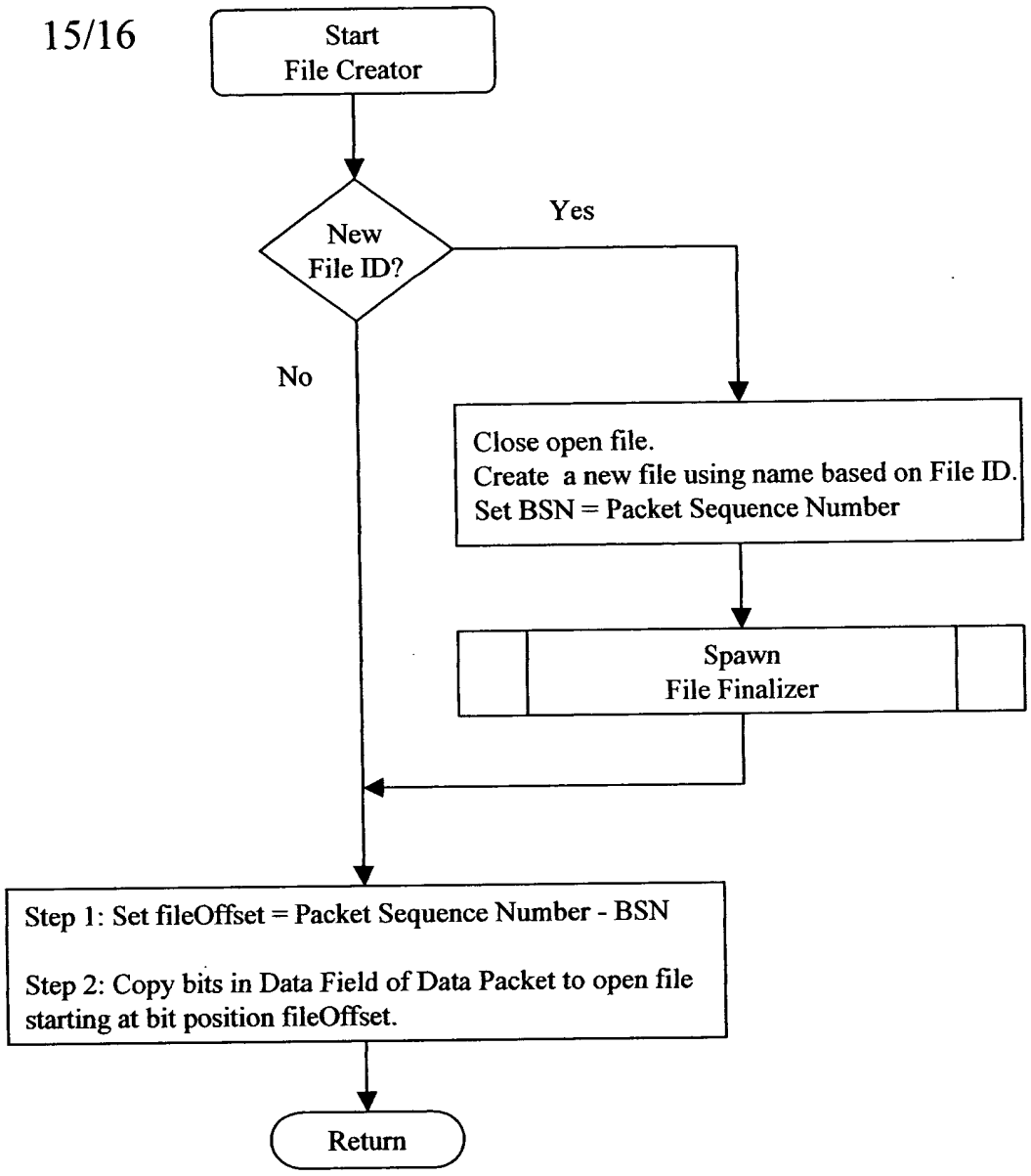
Start
File Creator
New
File ID?
Yes
No
Close open file.
Create a new file using name based on File ID.
Set BSN = Packet Sequence Number
Spawn
File Finalizer
Step 1: Set fileOffset = Packet Sequence Number - BSN
Step 2: Copy bits in Data Field of Data Packet to open file starting at bit position fileOffset.
Return

Fig. 13

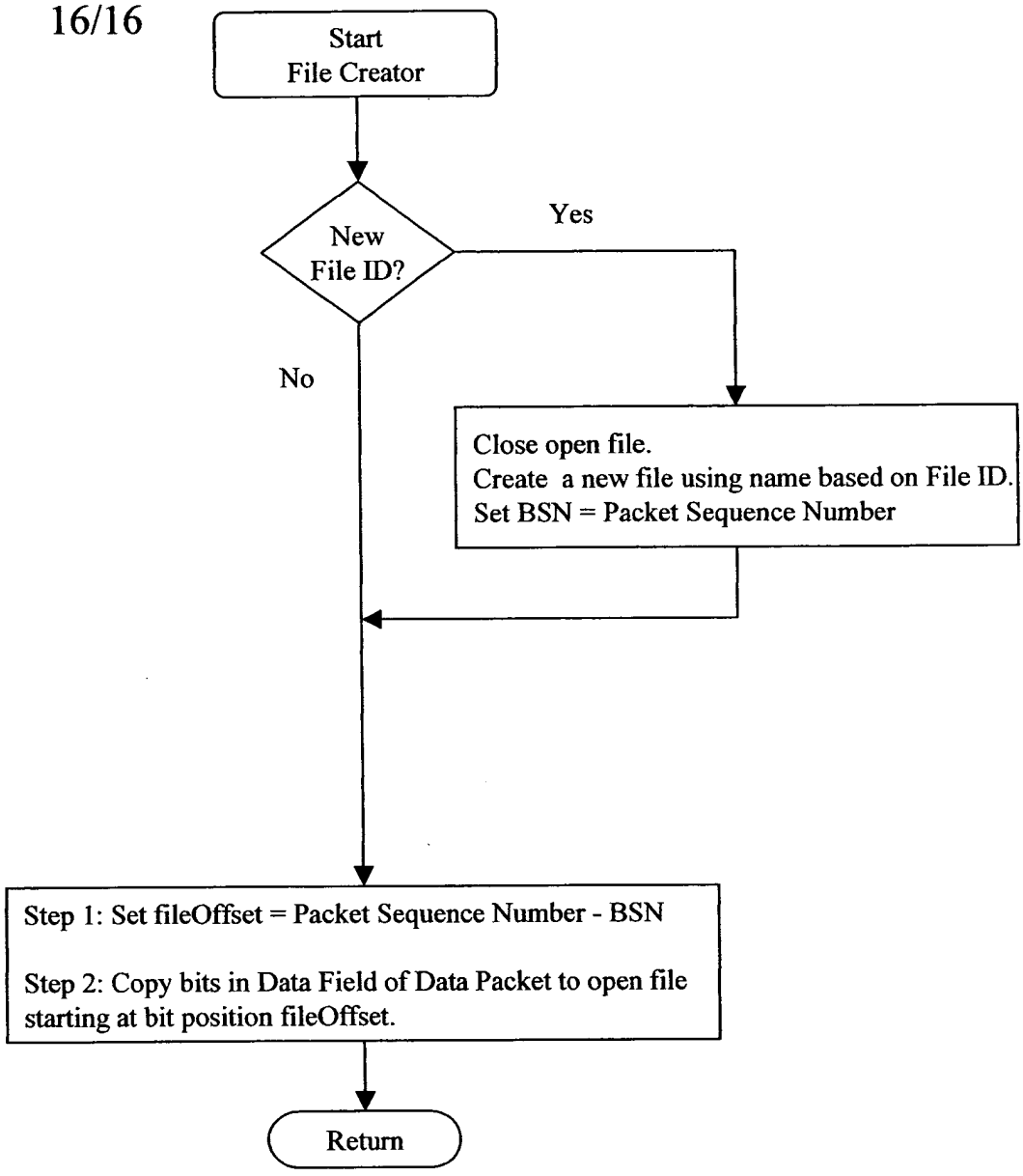
Start
File Creator
New
File ID?
Yes
No
Close open file.
Create a new file using name based on File ID.
Set BSN = Packet Sequence Number
Step 1: Set fileOffset = Packet Sequence Number - BSN
Step 2: Copy bits in Data Field of Data Packet to open file starting at bit position fileOffset.
Return

Fig. 13a